



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D2230-1

Job Sheet 186313



Part No: D2230-1

Job Qty: 200 ea

Part Name: Mounting Lug



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/14/18

Job Tracking No:

Due Date: 11/28/18 12/20/2018

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: D2230 REV.G IPP REV:C 18.02.02 REMOVE FINISH DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Purchasing	200 pcs		11/28/18	0.00	0.00	Purchasing		NOV 21 2018
120	Packaging	200 pcs		11/28/18	0.00	0.00	Packaging2		NOV 21 2018
130	QC	200 pcs		11/28/18	0.00	0.00	QC6		61 DAS
180	Packaging	200 pcs		11/28/18	0.00	0.00	Packaging3	1525A	NOV 22 2018
190	QC21-SA	200 Ea		11/28/18	0.00	0.00	QC21		6 9-89

Part Op 110 - Issue P/O to Metec : 041476 Manufacture as per dwg C of C is required
Descriptions: 120 - Ensure C of C is attach

NOV 15 2018 x 200

DAS
2 NOV 22 2018
9-89

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2230-1P	Lug	200 pcs (1 ea)	110-Purchasing	5129810
D2423	Lug Extrusion	13.6600 ft (.0683 ea)	110-Purchasing	5129815

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Purchasing	D2230-1P	200	38	0
	D2423	14	240	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Mounting Lug	4.450Inches ± 0.010	4.460 4.440		
2	Mounting Lug	0.306Inches ± 0.010	0.316 0.296		
3	Mounting Lug	0.345Inches ± 0.010	0.355 0.335		
4	Mounting Lug	0.400Inches ± 0.010	0.410 0.390		
5	Mounting Lug	0.250Inches ± 0.010	0.260 0.240		
6	Mounting Lug	3.700Inches ± 0.010	3.710 3.690		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY						Power Loss/Surge ☐ Folio/Program ☐ Positioned Wrong ☐ Instructions: Various STC's Exp Date: Inspector: Revision: Job No: 186313 Part: D2230--1 Serial No/Batch: S129816 Container No: S129816 DART AEROSPACE 1270 Aberdeen Street CANABOURN, ON K8A 1K7 TEL: 1 613 632-5200 Email: sales@dartaero.com www.dartaerospace.com	
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defi ☐ Inspection Incomplet ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomple ☐ Drill Holes ☐			
OTHER : ☐									

7	Mounting Lug	0.750Inches $\pm$ 0.010	0.760 0.740	
8	Mounting Lug	0.257Inches $\begin{matrix} + 0.005 \\ - 0.000 \end{matrix}$	0.262 0.257	Diameter
9	Mounting Lug	1.910Inches $\pm$ 0.010	1.920 1.900	
10	Mounting Lug	1.200Inches $\pm$ 0.010	1.210 1.190	Radius
11	Mounting Lug	0.375Inches $\pm$ 0.010	0.385 0.365	
12	Mounting Lug	0.273Inches $\pm$ 0.010	0.283 0.263	

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DQA: _____ Date: _____



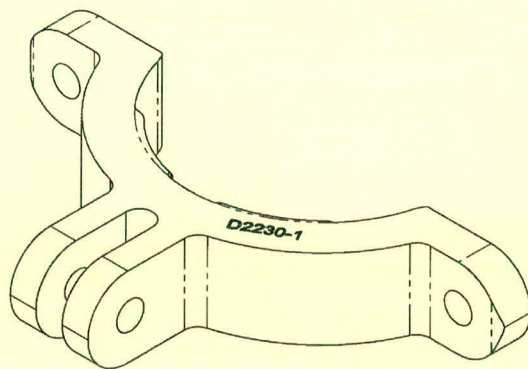
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

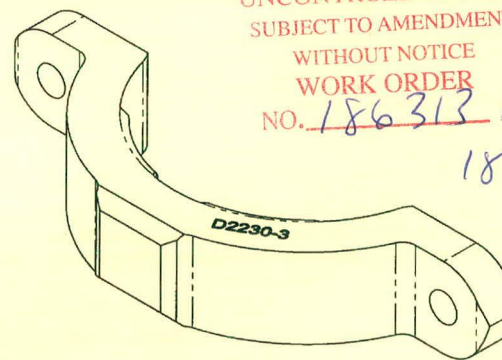
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					



D2230-1 MOUNTING LUG



D2230-3 MOUNTING LUG

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 186313 MLW
18-11-14

RELEASED
01/06/15 M

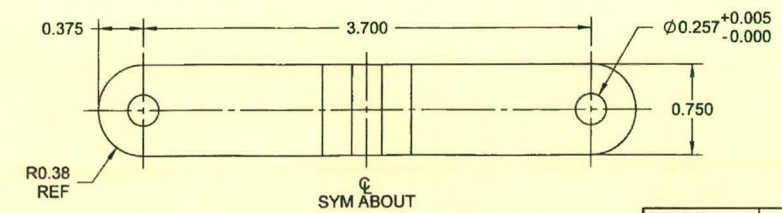
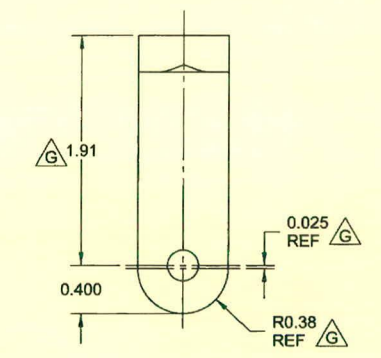
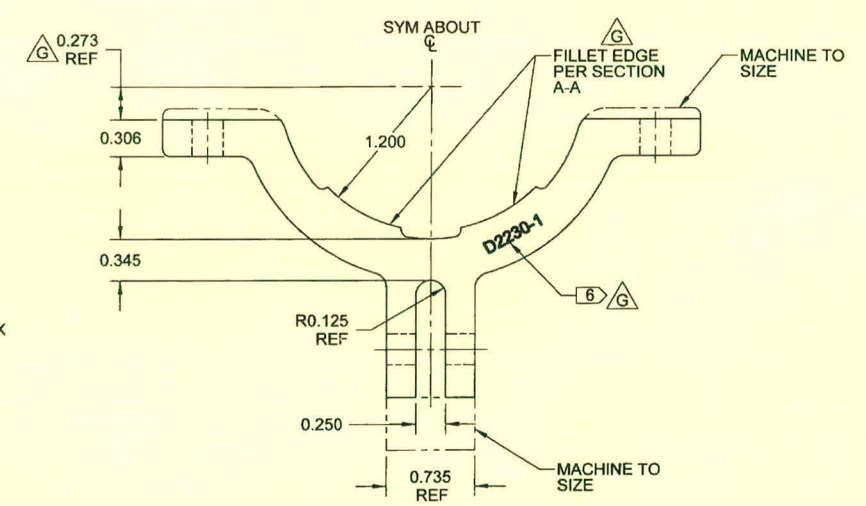
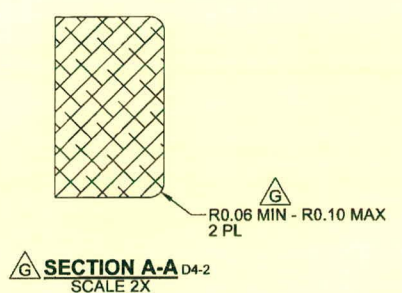
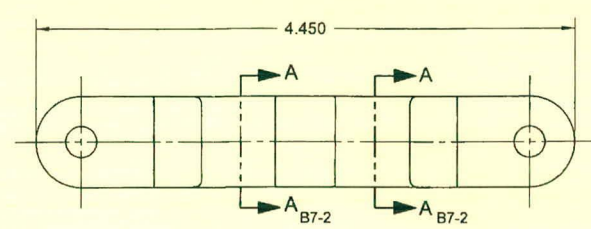


NOTES:

- 1) MATERIAL: MAKE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF 0.010±0.005 IN THIS LOCATION, WITH TOOL TIP RADIUS OF 0.015±0.005.
- 7) WEIGHT: -1: 0.16 lbs
-3: 0.14 lbs

G	REDRAWN IN SOLIDWORKS TO CURRENT DESIGN STANDARDS. REFER TO SECTION A-A & B-B FILLET ADDED TO PREVENT CHAFING OF RUBBER CUSHION ON INSTALLATION	AJS	09.01.16
F	REDESIGN: R1.200 WAS 1.100	CP	99.12.13
E	RE-DESIGN	BW	95.01.04
D	RE-DESIGN	BW	95.01.04
C	RE-DESIGN	BW	94.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D2230 MOUNTING LUG COPYRIGHT © 1994 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.		REV. G SHEET 1 OF 3 SCALE NTS	
DATE	09.01.16		

8 7 6 5 4 3 2 1



D2230-1 MOUNTING LUG

RELEASED
09/06/25/17

DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO. D2230	REV. G
MFG. APPR.		TITLE	SHEET 2 OF 3
APPROVED		MOUNTING LUG	SCALE
DE APPR.			NTS
DATE	09.01.16	COPYRIGHT © 1984 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041746**

Supplier: MEM001-VC
Metec Metal Technology Inc.
20 Terry Fox Drive PO Box 781
Vankleek Hill
ON
K0B 1R0 Canada
Phone: 613 678 3957
Fax: 613 678 3956

Attention: Walz, Shigi

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO041746

PO Date: 11/15/18

Due Date: 12/20/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	186313	D2230-1P			Lug As Per Dwg D2230 Rev. G Alodine and Paint as per QSI 005	Firmed	-	12/20/18	200 pcs	0 pcs	200 pcs	\$17.40/pcs	\$3,480.00
200 X NOV 21 2018 DAS 6 9-8													
Line Item Note SHIP ASAP NO PAINT REQUIRE													
2	186314	D2230-3P			Lug As Per Dwg D2230 Rev. G Alodine and Paint as per QSI005	Firmed	-	12/20/18	200 pcs	0 pcs	200 pcs	\$14.90/pcs	\$2,980.00
Line Item Note SHIP ASAP NO PAINT REQUIRE													
3	186316	D3910-1P			Crosstube Lug : Various STC's As Per Dwg D3910 Rev. E Alodine and Paint as pe QSI 005	Firmed	-	12/20/18	20 pcs	0 pcs	20 pcs	\$17.40/pcs	\$348.00
20 X NOV 21 2018													
Line Item Note PLEASE SUPPLY PAINTED													



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041746**

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	186317	D3910-3P			Crosstube Lug : Various STC's As Per Dwg D3910 Rev. E Alodine and Paint as Per QSI 005	Firmed	-	12/20/18	24 pcs	0 pcs	24 pcs	\$17.40/pcs	\$417.60
Line Item Note SHIP ASAP NO PAINT REQUIRE													
5	186315	D3338-1P			Mounting Lug : Various STC's receive pcs REV A	Firmed	-	12/20/18	40 pcs	0 pcs	40 pcs	\$20.60/pcs	\$824.00
Line Item Note PLEASE SUPPLY PAINTED													
												Grand Total:	\$8,049.60

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Plex 11/19/18 11:56 AM dart.Lussier.Patrick



www.metec.ca | 20 Terry Fox Drive, Vankleek Hill, Ontario, Canada K0B 1R0 | Phone: +1 613-678-3957 Fax: +1 613-678-3956

Packing List

Bill Dart Aerospace Ltd.
To: 1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship Dart Aerospace Ltd.
To: 1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Shipment No: 24264
Shipment Date: 20-Nov-2018
Ship Via: Pick up at METEC
Order Number: 3192
Order Date: 11/16/18

Customer Code: DART
Phone: (613) 632-9577
PO Number: PO041746
Terms: Net 60 Days

----- Quantity -----								Job
Item	Open	Shipped	B/O	Canceled	Unit	Description	Revision	Number
1	200	200 ✓	0	0	EA	DART-D2230-1P Mounting Lug alodined and painted as per QSI005	G	3192-01
2	200	0	200	0	EA	DART-D2230-3P Mounting Lug alodined and painted as per QSI005	G	3192-02
3	20	20 ✓	0	0	EA	DART-D3910-1P Crosstube Lug, alodined and painted as per QSI 005	E	3192-03
4	24	0	24	0	EA	DART-D3910-3P Crosstube Lug alodined and painted as per QSI005	E	3192-04
5	40	0	40	0	EA	DART-D3338-1P Mounting Lug alodined and painted as per QSI005	A	3192-05

DAS
61
9-89

The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.

Packing Clerk's Signature
Metec Metal Technology Inc

Received In Good Order By

Page 1 of 1



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0

Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

same

Quantity	Part Number	Part Name	^{DAS} 61 9-89	Dwg Rev.#	Material Batch #	Paint Batch #	P.O. Number
200 ✓	D2230-1 ✓	Mounting Lug		G	B101186	22497	41746 ✓
20 ✓	D3910-1 ✓	Cross Tube Lug		E	B160522	22497	41746 ✓

MATERIAL: supplied by DART

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Heather Nixon

Vankleek Hill, November 20, 2018

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS 60637

STATEMENT OF WORK

The purpose of this Statement of Work is to define the scope, objectives, and deliverables of the project. This document serves as a reference for all project activities and is intended to be read in conjunction with the project charter and other project documents.

The project is intended to develop a new system for managing the university's financial data. The system will be developed using the latest technology and will be designed to be user-friendly and efficient. The project will be completed by the end of the fiscal year.

The project will be managed by the Project Manager, who will be responsible for ensuring that the project is completed on time and within budget. The Project Manager will also be responsible for coordinating with the various departments involved in the project.

The project will be divided into several phases, including planning, analysis, design, development, testing, and deployment. Each phase will have its own set of tasks and deliverables.

The project will be monitored and controlled throughout its life cycle. The Project Manager will provide regular status reports to the steering committee and will be responsible for managing any risks to the project.

The project will be completed by the end of the fiscal year. The final deliverable will be a fully functional system that will be used by the university's financial department.